BIBLIOGRAPHICAL NOTICES.

Natural-History Transactions of Northumberland and Durham. Vol. III. Part 2. 8vo, 1870.

Cardiff Naturalists' Society, Report and Transactions, 1868-69. 8vo, 1870.

The first of the above-mentioned works comprises papers read at the meetings of the Natural-History Society of Northumberland, Durham, and Newcastle-upon-Tyne, and of the Tyneside Naturalists' Field-Club, together with an Anniversary Address by the President, the Rev. R. F. Wheeler, Financial and other Reports, lists of officers and members, and index to the volume for 1868–70. The President's Address to the members of the Field-Club was read in the museum of the Natural-History Society, thus bringing pleasant reminiscences of summer excursions, and succinct notices of their useful results, to the indoor gathering of town and country members, amidst the trophies their science and energy have won from nature and stored in their famous museum. The address itself is not only an eloquent record of one year's happy work, but a typical compendium of the lines of research and modes of operation that our ardent but steady North-of-England brethren have pursued for a quarter of a century in their elaboration of complete catalogues and full descriptions of all things and circumstances which are presented to their notice as parts and belongings of the system of Nature—Newton's "elegantissima compages," of which man is not only to be an admiring spectator, but an intelligent interpreter.

Both the recent and the fossil life of Northumbria are worthily treated of in the fasciculus before us; and several of the communications, with their illustrations, have already graced the 'Annals of Natural History.' G. S. Brady catalogues many of the Freshwater Algæ, and also enumerates various bivalved Entomostraca, describing some little-known and new forms, with figures in plates 12, 13, & 14; indeed two new genera (*Potamocypris* and *Xiphichilus*) are established by this excellent entomostracist for some of them. T. J. Bold supplies some interesting and useful entomological notes for the year 1869; he assures us there is no ground for the fear of mosquitoes that English newspapers were affected with last summer: the *Cynipides* of the woody oak-gall appear to be all *females*: the short-tailed field-mouse of Cheviot has for its flea Curtis's *Ceratopsyllus talpæ*: there are eighteen species of the aquatic hemipterous genus *Corixa*, and at least seventeen other aquatic Hemiptera, in the district. J. Wright describes the enamel-tipped teeth of *Labrus maculatus* (pl. 15) for the purpose of setting some Londoners right who have ignored this structure in certain recent and fossil fish-teeth.

A. Hancock, T. Atthey, and R. Howse carefully describe and figure (plates 9, 10, 11) teeth of fishes known under the generic names of *Climaxodus* (M'Coy, 1848) and *Janassa* (Münster, 1832), and establish the priority of the latter. *J. bituminosa* (Schlotheim) has been discovered in the so-called "marl-slate" of the Permian formation at Midderidge, Durham. *Anthracosaurus Russelli* (Huxley) has

turned up in Northumberland, and a new species (*reticulatus*) of *Urocordylus*, both Labyrinthodont Amphibians of the Coal-measures; and Messrs. Hancock and Atthey describe them in full. They also give a detailed account and careful figures (plates 7 & 8) of some remarkable little bodies, from the black shales of the coal-measures, which, after an exhaustive examination, they determine to be fossil Fungi—five species (or varieties?) of a genus they name *Archagaricon*, and which they demonstrate to be closely allied to the Indian *Sclerotium stipitatum* of Berkeley and Currey. These papers have already appeared in the 'Annals.'

Mr. Kirkby corrects, with the latest views and nomenclature, the description given by Messrs. Baker and Tate of the Permian formation of Durham. Sir W. C. Trevelyan observes that the well-preserved trunk of an oak, found in the Boulder-clay between the Lindenshaw and Cocker Burns, "is an indication, I think, that the *whole* of the country had not been covered with ice" in the Glacial Period, "but that there were parts free from it, on one of which this tree was growing." He also draws other interesting inferences therefrom. The Meteorological and Climatological Reports for 1869, by the Rev. R. F. Wheeler, month by month, for definite localities in the district, and with general notices also, occupy more than 100 pages, are most elaborate and praiseworthy, full of both scientific and popular information, and form necessarily a very valuable portion of the volume.

The second of the works under notice is worthy of high consideration as the result of the second year's existence and labours of a new Naturalists' Society, following (like many others, we are happy to say) the examples of the Berwickshire, Tyneside, and other Field-Clubs of long standing and good repute. The 120 pages of the Cardiff Naturalists' Transactions show that they have not been idle during 1868–69; and, though they have not added much that is new to science, they have been preparing themselves for accurate work by learning from Mr. Vivian what may be done with the microscope in mineralogy and metallurgy, and from Mr. G. C. Thompson and their president, Mr. W. Adams, what the real objects of their Society should be; whilst other members have collected information for them in papers and lectures on miscellaneous subjects. The outdoor meetings have taken the members to many interesting localities of botany, geology, and archæology, and have resulted in valuable notes on such objects of interest at the Cefn On tunnel and Caerphilly, at Southerndown, Ewenny, and Dunraven, and at Caerleon and Newport. At Southerndown, in a lecture on "the primeval rivers of Britain," Prof. T. Rupert Jones, of Sandhurst, descanted on the "fluviatile and lacustrine strata" met with among the British formations; and Mr. Franklen G. Evans, of Cardiff, described the occurrence of two peculiar siliceous stones found in a coal-seam, and other interesting facts. Mr. Evans has also supplied to this volume of Transactions a monthly Meteorological Report for 1869; and a large lithograph rain-gauge map, including Swansea, Merthyr Tydfil, Abergavenny, Newport, Cardiff, &c., and serving well to show the

field of operations of this Naturalists' Society in South Wales, is appended.

Two memoirs (reprinted from the 'Geological Magazine'), and their plates, illustrative of fossil Reptiles and fossil Bivalved Entomostraca discovered in South Wales by Mr. J. E. Lee and Mr. W. Adams, and described by Prof. Owen and Prof. Rupert Jones respectively, form part of this highly praiseworthy volume of reports and transactions.

Geology. By Prof. John Morris, F.G.S., &c., and Prof. T. Rupert Jones, F.G.S., &c. First Series. 12mo. London: Van Voorst, 1870.

Professor Rupert Jones is probably of opinion that the clergy have too long had a monopoly of the convenience of possessing printed skeletons for their discourses. In order to extend a similar benefit to geological lecturers, he publishes, in the little volume now before us (which is to be followed by a Manual of Geology of the regulation pattern), the heads of lectures on Geology and Mineralogy delivered by him from 1866–1870, at the Cadet College, Sandhurst, together with the synopses of Lectures used at the Staff and Cadet Colleges, Sandhurst. As far as the mere furnishing of skeleton courses of lectures is concerned, this little book, coming from the hands of a highly accomplished geologist and experienced teacher, will prove of immense value to those who are entering upon a course of geological tuition, and especially to regular science-teachers and to schoolmasters, who, possessing already some knowledge of the subject, desire to give their pupils instruction in geology.

Professor Rupert Jones considers also that the book may be useful to the student, who "will find clear statements and explanations of the things, facts, and circumstances on which Geology is based;" and this, to a certain extent, is certainly the case; but it seems to us that the information given is too condensed and purely synoptical in its nature to enable any but very exceptional students to learn Geology from it. But with the help of other books there can be no doubt that these skeletons of courses of lectures, which contain perfectly intelligible references to a vast mass of details, may be of great service by the admirable series of classifications of geological facts which they present; and we must also confess, in the author's justification, that the amount of instruction that he has compressed into so small a space is perfectly astonishing, when we study the contents of his book by means of its cross references and index, in the manner recommended by him. Moreover, as a work of instruction, this part is placed rather at a disadvantage by its appearance without the second part, or Geological Manual properly so called, which will of course contain the expanded details of the subjects here treated with extreme brevity.

There is yet another light in which the authors do not seem to have regarded their present work, but viewed in which it seems to us to promise to be exceedingly serviceable—namely, as a note-book